

BEFORE THE TENNESSEE REGULATORY AUTHORITY

NASHVILLE, TENNESSEE

December 12, 2000

IN RE:

TELEPHONE NUMBERING POOLING

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DOCKET NO. 00-00851

**ORDER IMPLEMENTING 1000 NUMBER-BLOCK POOLING
IN THE 615 AND 901 AREA CODES**

At a regularly scheduled Authority Conference held on September 26, 2000, the Directors of the Tennessee Regulatory Authority ("Authority" or "TRA"), acting pursuant to authority expressly delegated to the TRA by the Federal Communications Commission ("FCC"), voted unanimously to open this docket for the purpose of implementing thousand-block number pooling (hereinafter referred to as "1K Pooling") in the 615 and 901 area codes. The implementation of 1K Pooling is necessary to promote the efficient use of Tennessee's numbering resources, thereby reducing the depletion of Tennessee's 901 and 615 area codes while providing sufficient telephone numbering resources to meet the expected demand by the public and all telecommunications service providers.

BACKGROUND

Like many other states, Tennessee is experiencing the ever-increasing need to add new area codes within the state due to a shortage of available central office codes or NXX codes.¹ This shortage is most acute in the 615 and 901 area codes. The prime cause of this problem is the under-utilization of telephone numbers assigned to telecommunications service providers. A national study has revealed that practices utilized for the nationwide assignment of telephone numbers are no longer efficient or practicable. It is estimated that in many instances less than half of the numbers made available to carriers are actually utilized.² The utilization of numbers by providers in Tennessee is comparable to the number utilization rates found in the national study.

Through its own research and investigation, the Authority has determined that a primary factor contributing to the under-utilization of telephone numbers is the inefficient practice of allocating numbers in pre-determined blocks of 10,000 numbers without taking into account the actual demand for individual numbers. Assigning central office codes in blocks of 10,000 numbers, a practice established when one provider maintained a monopoly, is no longer viable in today's environment of competition in the telecommunications marketplace. The historic method of assigning numbers in 10,000 blocks has resulted in a rapid depletion of numbering resources, thereby contributing to the need for the additional area codes. The constant addition of new area codes is not only confusing but also costly to consumers as well as to the telecommunications industry.

¹ "Central Office code" or "NXX code" refers to the second three digits of a ten digit telephone number in the NPA-NXX-XXXX, where N represents any one of the numbers 2 through 9 and X represents any one of the numbers 0 through 9. See, 47 C.F.R. § 52.7(c).

² The North American Numbering Plan Administrator ("NANPA") estimates that utilization of numbering resources range between 5.7% to 52.6%, depending upon the industry sector (NANPA Report to the FCC, February 12, 1999).

Action taken by the Tennessee Regulatory Authority

In recognition of the telephone numbering problems in Tennessee, the Authority has taken specific action designed to implement long-term solutions for area code relief. Throughout this process, the Authority has solicited and obtained the assistance of the telecommunications industry and the public. The Authority has taken steps to delay the depletion of the 615 area code and therefore has temporarily deferred a relief decision for the 615 area code due to the numbers remaining until exhaust.³ Nevertheless, the continuous depletion of numbering resources demonstrates the need to find a solution to the numbering problems, other than merely adding new area codes.

On February 1, 1999, the Authority commissioned the Tennessee Telecommunications Association ("TTA") to form a Number Conservation Task Force ("Task Force") to research options and make recommendations relative to measures that may be taken for numbering resource conservation.⁴ The Task Force's findings were delivered to the Authority in December 1999 and included the recommendation that number pooling be implemented in Tennessee when the 3.0 version of pooling software is released by NeuStar.⁵

At an Authority Conference held on October 12, 1999, the Directors of the Authority unanimously resolved to petition the FCC for authority to implement number conservation measures, including, but not limited to, thousands-block pooling and NXX code reclamation. In conjunction with this action, on October 15, 1999, the Authority issued a Request to all affected and relevant Tennessee telecommunications service providers, including cooperatives, to consider taking voluntary measures toward area code conservation, including, but not limited to,

³ According to the North American Numbering Plan Administrator ("NANPA"), 160 central office codes remain available for assignment in the 615 area code as of October 2000.

⁴ The Task Force is composed of both wireline and wireless carriers and Authority Staff. The National Regulatory Research Institute ("NRRI") assisted the Task Force with a number utilization study.

⁵ *Report and Recommendations of the Number Conservation Task Force to the Tennessee Regulatory Authority*, December 30, 1999, p. 21.

voluntarily reviewing their numbering inventories and voluntarily returning non-utilized or otherwise dormant NXX codes to NANPA.⁶ This Request was served on thirty-two (32) wireless carriers and Incumbent Local Exchange Carriers (ILECs) and Competing Local Exchange Carriers (CLECs) authorized to conduct business in Tennessee. While this Request for voluntary return of unused NXX codes was somewhat successful in the 615 area code, very few codes were returned in the 901 area code. In fact, carriers increased their requests for NXX code assignments in the 901 area code thereby accelerating the depletion of NXX codes and causing the 901 area code to reach jeopardy status sooner than anticipated.⁷

At the Authority Conference held on December 7, 1999, the Directors of the Authority voted unanimously to request NANPA to conduct a meeting of all telecommunications service providers in Tennessee for the purpose of developing an industry voluntary allocation plan for NXX code assignment in the 615 and 901 area codes.⁸ The objective of the voluntary plan would be to extend the life of both the 615 and 901 area codes until the fourth quarter of 2003 by ensuring a steady and consistent allocation of NXX codes per month within the two area codes. The Directors further requested NANPA to report to the Authority, at the first conference in February 2000, the developments concerning the industry voluntary allocation plan. At the Authority Conference held on February 1, 2000, NANPA reported to the Directors that the telecommunications industry could not reach an agreement to institute a voluntary NXX code allocation plan.

⁶ *Request to All Affected Telecommunications Service Providers and Cooperatives in Tennessee to Take Voluntary Area Code Conservation Measures*, issued on October 15, 1999 in TRA Docket No. 99-00784.

⁷ An area code is declared in "jeopardy" by NANPA when there are insufficient NXX codes remaining to meet the expected demand until an area code relief plan can be selected by state regulators and implemented by the industry.

⁸ *Request to North American Numbering Plan Administrator to Develop an Industry Voluntary Allocation Plan and to Provide Periodic Reports to the Tennessee Regulatory Authority on NXX Code Requests*, TRA Docket No. 99-00784, December 10, 1999.

Notwithstanding the Authority's actions to improve utilization of the State's numbering resources, two of Tennessee's area codes, 901 and 615, have been declared to be in jeopardy by NANPA.⁹ NANPA estimates that the 901 and the 615 area codes will exhaust during the fourth quarter of 2001 and the second quarter of 2002, respectively. To address the jeopardy status in the most critical area code, the Authority acted on August 15, 2000, after a series of public hearings, to relieve the 901 area code by geographically splitting the existing area code and assigning a portion to the newly created 731 area code. Nevertheless, because of the increasing demands for numbers, this action will provide only temporary relief for the new 901 area code serving Shelby, Tipton and Fayette counties in Tennessee.¹⁰

The TRA's Delegated Authority from the FCC

The federal Telecommunications Act of 1996 (the "Act") grants the FCC exclusive jurisdiction over the North American Numbering Plan in the United States.¹¹ The FCC, however, has delegated specific authority to certain states to implement number conservation measures in the form of voluntary thousands-block number pooling trials and central office code rationing in certain cases. More recently, the FCC has issued two significant orders: *Numbering Resource Optimization, Report and Order and Further Notice Of Proposed Rule Making* (CC Docket No. 99-200, FCC 00-104) (March 31, 2000) (hereinafter referred to as the "*Numbering Resource Optimization Order*") and *FCC Order DA 00-1616* granting delegated authority to state regulatory commissions, released July 20, 2000 (hereinafter referred to as the "*Order Delegating Authority*").

⁹ On March 15, 2000, NANPA informed the Authority that it had declared the 901 area code in jeopardy. On July 17, 2000, the Authority was advised by NANPA that it had declared the 615 area code in jeopardy.

¹⁰ NANPA projects that the demand for numbering resources by new providers may result in the redefined 901 area code providing sufficient numbering resources only for four (4) additional years.

¹¹ 47 U.S.C. § 251(e)(1).

On November 16, 1999, the TRA filed a petition with the FCC seeking additional delegated authority to implement numbering conservation measures. Specifically, the TRA requested that the FCC delegate authority to the TRA to: enforce current and new numbering allocation standards; maximize the efficiency of number use practices within NXX codes by setting fill rates and by requiring utilization surveys; reclaim unused and reserved NXX codes and portions of those codes; order number utilization and forecast reporting and audit such reporting; and implement mandatory thousands-block number pooling.¹² In addition to the conservation measures requested in its petition, the Authority is currently investigating Rate Center Consolidation. In continuing to address long term solutions to the telephone numbering problems through conservation measures, the Authority has now become actively involved with NANPA for NXX Reclamation as authorized by the FCC's Order.¹³

On July 20, 2000, the FCC granted, in part, Tennessee's Petition for Additional Delegated Authority, specifically approving the TRA's request to implement thousands-block pooling.¹⁴ In delegating authority to implement 1K pooling trials to a number of states, including Tennessee, the FCC recognized:

Numbering resource optimization measures are necessary to address the considerable burdens imposed on society by the inefficient use of numbers; thus, we have enlisted the state regulatory commissions to assist the FCC in these efforts by delegating significant authority to them to implement certain measures within their local jurisdictions... [T]he state commissions, to the extent they act under the authority delegated herein, must ensure that numbers are made available on an equitable basis; that numbering resources are made available on an efficient and timely basis; that whatever policies the state commissions institute with regard to numbering administration not unduly favor or disfavor any particular telecommunications industry segment or group of telecommunications

¹² *Petition of the Tennessee Regulatory Authority for Additional Delegated Authority to Implement Numbering Conservation Measures*, FCC NSD File No. L-99-94 (November 16, 1999).

¹³ Report and Order and Further Notice of Proposed Rule Making, FCC 00-104, In the Matter of Number Resource Optimization, CC Docket No. 99-200, March 31, 2000, Para. 237 ("*Numbering Resource Optimization Order*").

¹⁴ *Order*, FCC, DA 00-1616, In the Matter of Numbering Resource Optimization, CC Docket No. 99-200, July 20, 2000, Para. 47 ("*Delegated Authority Order*").

consumers; and that the state commissions not unduly favor one telecommunications technology over another.¹⁵

The FCC noted further,

Although we are giving the state commissions tools that may help to prolong the lives of existing area codes, the state commissions continue to bear the obligation of implementing area code relief when necessary, and we expect the state commissions to fulfill this obligation in a timely manner.¹⁶

In its Order, the FCC states further that it did not rule on a number of aspects of the states' petitions, including Tennessee's petition, because "the *Numbering Resource Optimization Order* has already addressed these specific numbering resource optimization measures."¹⁷ The measures referred to in the *Numbering Resource Optimization Order* include: reclamation of unused or reserved NXX codes, industry reporting requirements and utilization forecasting, sequential number assignments, facilities readiness, and fill rates. The *Numbering Resource Optimization Order* establishes that 1K Pooling be accomplished in accordance with the Industry Numbering Committee ("INC") Guidelines,¹⁸ and that unused 1000 blocks, as well as 1000 blocks with less than ten percent (10%) contamination,¹⁹ be donated by pooling carriers to the number pooling administrator.²⁰ In addition, the *Numbering Resource Optimization Order* calls for Sequential Number Assignment by carriers unless the carrier can demonstrate to the state that a new block needs opening to fulfill a customer's request.²¹

In its *Delegated Authority Order*, the FCC specified that "state commissions with thousands-block number pooling authority are responsible for thousands-block number pooling

¹⁵ *Delegated Authority Order*, July 20, 2000, Para. 10.

¹⁶ *Delegated Authority Order*, July 20, 2000, Para. 11.

¹⁷ *Delegated Authority Order*, July 20, 2000, Para. 5.

¹⁸ *Numbering Resource Optimization Order*, March 31, 2000, Para. 183.

¹⁹ "Contamination" refers to telephone numbers have been assigned and are working within a particular 1K block.

²⁰ *Numbering Resource Optimization Order*, March 31, 2000, Para. 191.

²¹ *Numbering Resource Optimization Order*, March 31, 2000, Paras. 234 and 235.

administration” and that “[t]his responsibility includes the selection of a thousands-block number Pooling Administrator to allocate thousands-blocks to carriers within the area in the state where pooling is implemented...”²² The FCC has previously established preliminary guidelines for pooling and outlined the process for the national roll-out of pooling.²³ Any state that is granted additional delegated numbering authority to conduct interim pooling must comply with the national guidelines in such a manner that the transition will be seamless when the national roll-out occurs.²⁴

FINDINGS AND CONCLUSIONS

As a part of their deliberations on September 26, 2000, the Directors unanimously rendered specific findings as to the following five (5) issues that are inherent in exercising the delegated authority to implement interim thousand-block number pooling: (1) selection of an interim Pooling Administrator; (2) selection of pooling software to be used; (3) mandatory reclamation of under-used thousand number blocks; (4) treatment of pooling costs and (5) establishment of an implementation date.

1. Selection of an Interim Pooling Administrator

In its *Delegated Authority Order*, the FCC delegated to the TRA the Authority to select a pooling administrator for Tennessee that will be responsible for organizing and implementing the pooling trial, including the ongoing duty of fulfilling new number requests from carriers. The Authority’s selection of an interim Pooling Administrator will be superceded by the FCC when the FCC selects the national pooling administrator.²⁵

²² *Delegated Authority Order*, July 20, 2000, Para. 20.

²³ *Numbering Resource Optimization Order*, March 31, 2000.

²⁴ *Numbering Resource Optimization Order*, March 31, 2000, Para. 14.

²⁵ Even though the North American Numbering Council (“NANC”) recommended to the FCC that NeuStar be selected as the national Pooling Administrator, the FCC has subsequently determined that the process of appointing a national pooling administrator shall be bid competitively. *Numbering Resource Optimization Order*, March 31, 2000, Para. 146-148.

Upon being delegated the additional authority, the TRA began the process of selecting an interim state Pooling Administrator. Two companies, NeuStar and Telcordia Technologies ("Telcordia"), made presentations to the Authority concerning their qualifications to provide pooling administration. The Authority considers both companies to have the requisite technical capability and neutrality status to serve as an interim state pooling trial administrator. NeuStar submitted a cost estimate for its services as interim pooling administrator.²⁶ Telcordia agreed to conduct Tennessee's interim pooling trial within the 901 and 615 area codes until the national pooling administrator is selected by the FCC without imposition of costs. The Authority finds that the selection of Telcordia is in the public interest because Tennessee consumers will not incur interim pooling administrative costs. The Authority therefore appoints Telcordia as the interim Pooling Administrator for Tennessee.

2. Selection of Pooling Software

At the present time, telephone switches identify calls by looking at the first six (6) digits (area code + the central office code). Under this practice, only one carrier is identified with each central office code. This practice prevents carriers from sharing central office codes. Pooling, or the sharing of central office codes by multiple carriers, requires switching software that can process ten (10) digits. A 3.0 version of the pooling software designed to accomplish this activity in an efficient manner is presently being tested and should be available during the first quarter of 2001.

The use of 3.0 version software is more suitable for number pooling trials. First, the 3.0 version is more compatible with the national requirements of Local Number Portability ("LNP"), a prerequisite for number pooling. Second, the FCC has recommended using 3.0 for the national

²⁶ NeuStar requested that its estimate of pooling administrative costs be treated as proprietary information.

roll-out of pooling.²⁷ Finally, requiring the telecommunications industry to use the older 1.4 version and then convert to the 3.0 version, especially when it will be available in January 2001, is inefficient and increases the pooling implementation cost by adding a conversion expense. For the above reasons, the Authority finds that using 3.0 version of the pooling software is in the public interest and adopts 3.0 version for use in implementing number pooling.

3. Mandatory Reclamation of Under-Used 1K Number Blocks

For 1K Pooling to achieve its purpose of conserving telephone numbers, it is imperative that under-used 1000 number blocks be returned to the pooling administrator. Such action allows stranded, unused telephone numbers to be returned to the pooling administrator for assignment to other carriers requiring numbering resources. In Tennessee, it is especially important that telecommunications service providers operating in the 901 and 615 area codes all return under-used 1000 number blocks to the interim Pooling Administrator. Number utilization study results reported by the TTA in December 1999 revealed that 582 one thousand number blocks exist in the 615 area code that have less than ten percent (10%) contamination.²⁸ The TTA's number utilization study reveals that 1K blocks can be returned to the interim Pooling Administrator under mandatory reclamation so as to make pooling a viable number conservation effort.

In determining what constitutes under-used 1K blocks, the Authority uses the national standard of 10 percent (10%) contamination.²⁹ The Authority has determined that all telecommunications service providers capable of local number portability, not exempted by the

²⁷ FCC adopted the INC Pooling Guidelines for the national standard of T1S1.6 for pooling. Version 3.0 is the software that satisfies this technical requirement for 1K number block pooling. *Numbering Resource Optimization Order*, March 31, 2000, Para. 181.

²⁸ *Report and Recommendations of the Number Conservation Task Force to the Tennessee Regulatory Authority*, December 30, 1999, Attachment 2, p. 36.

²⁹ The FCC found that "donation of thousands-block with up to a ten percent contamination threshold has the potential to add significant numbering resources in areas where thousands-block number pooling has been implemented." *Numbering Resource Optimization Order*, March 31, 2000, Para. 191.

FCC, shall return to the interim Pooling Administrator all 1K number blocks where the assignment of numbers within a 1K block is equal to or less than 10 percent (10%).

4. Treatment of Pooling Costs

There are two kinds of costs associated with number pooling: administrative costs and implementation costs. Administrative costs are associated with the expenses of the Pooling Administrator. Implementation costs are expenses incurred by telecommunications service providers as a result of implementing 1K pooling. Tennessee will not incur administrative costs due to the selection of Telcordia.

The FCC's *Numbering Resource Optimization Order* provides that states authorized to implement interim pooling trials shall determine the method of recovery of all pooling costs.³⁰ Such recovery is governed by Section 251 of the Act which states that any recovery mechanism shall be competitively neutral.³¹ The FCC is expected to address the national pooling cost issues and develop a recovery mechanism expected to be similar to the mechanism utilized for local number portability.³²

Addressing Tennessee specific pooling costs at such a time when pooling is implemented will permit the Authority additional time to ascertain the FCC's position as to cost recovery on the national level. Further, addressing costing issues at this time could slow the implementation of number pooling, thereby impacting area code relief for the 615 area code. The Authority finds that cost recovery for interim pooling shall be addressed in a separate proceeding and directs Authority Staff to work with the telecommunications industry to develop a schedule for addressing interim 1K pooling cost recovery.

³⁰ *Numbering Resource Optimization Order*, March 31, 2000, Para. 171.

³¹ *Numbering Resource Optimization Order*, March 31, 2000, Para. 200.

³² *Numbering Resource Optimization Order*, March 31, 2000, Paras. 200 and 214.

5. Establishing an Implementation Date

The establishment of a realistic implementation date for interim number pooling provides the industry with a firm estimate of time for the activation of number pooling. In its *Report and Recommendation of the Number Conservation Task Force to the Tennessee Regulatory Authority*, the Task Force recommended that an implementation date be made part of the Authority's number pooling order.³³ Every state that has initiated a pooling trial has included an implementation date in its pooling order.

In determining a date for the commencement of number pooling, the Authority considered several factors. Due to the jeopardy status of the 901 and the 615 area codes, implementation of number pooling must be commenced as soon as practicable. The Authority considered that the 3.0 version of pooling software should become available during the first quarter of 2001. Furthermore, Tennessee's implementation date must fit within the FCC's limitation on pooling trials. The FCC has found that a staggered roll-out is necessary in order to prevent telecommunications network disruptions, and concluded that not more than three (3) Numbering Plan Areas ("NPAs") should be implemented within each Numbering Plan Area Code ("NPAC") region per quarter.³⁴

The Authority finds that the earliest date for implementing number pooling in the 615 area code should be March 1, 2001, contingent upon NeuStar releasing 3.0 version software prior to that implementation date. As a result of action previously taken by the Authority to reduce depletion of the 901 area code, implementation of 1K Pooling in the 901 area code is not as urgent as in the 615 area code. The Authority finds that number pooling in the 901 area code should be implemented not later than thirty (30) days prior to the mandatory dialing date for the

³³ *Report and Recommendation of the Number Conservation Task Force to the Tennessee Regulatory Authority*, December 30, 1999, page 25.

³⁴ *Numbering Resource Optimization Order*, March 31, 2000, Para. 159.

new 731 area code. These staggered number pooling implementation dates in Tennessee will allow the telecommunications service providers adequate time to plan and implement the necessary modifications to their networks.

IT IS THEREFORE ORDERED THAT:

1. Telcordia is selected as Tennessee's interim Pooling Administrator until such time as the FCC selects a national Pooling Administrator. Telcordia shall be responsible for entering into appropriate agreements with members of the telecommunications industry and with North American Portability Management, L.L.C.³⁵ and for conducting all required meetings and pooling activities.

2. Interim 1K Pooling Trials shall be conducted using the version 3.0 pooling software.

3. Interim 1K Pooling Trials shall be conducted in the 615 and 901 area codes and all Local Number Portability capable carriers in those areas shall participate in the number pooling trials.

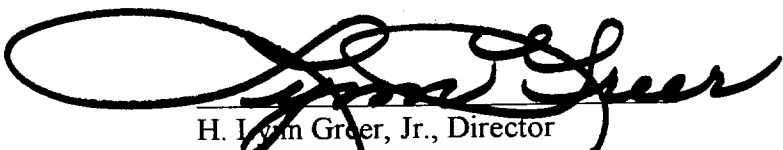
4. Interim 1K Pooling shall be implemented in the 615 area code not later than March 1, 2001, or upon the availability of version 3.0 pooling software, whichever is later. Interim 1K Pooling shall be implemented in the 901 area code not later than thirty (30) days prior to the date that mandatory dialing begins for the new 731 area code in West Tennessee.

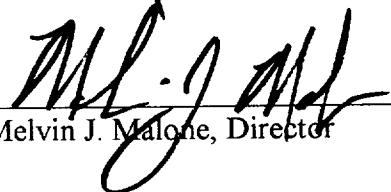
5. Pursuant to the authority delegated to the TRA by the FCC and as set forth in this Order, all Local Number Portability capable carriers assigned central office codes in the 615 and 901 NPAs are hereby required to: (1) initiate block protection for 1K blocks where number

³⁵ North American Portability Management, L.L.C. is the entity organized by and representing the telecommunications industry for the purpose of entering into agreements to conduct interim number pooling.

assignment is equal to or less than ten percent (10%); (2) donate under-used 1K number blocks to Tennessee's interim Pooling Administrator, and (3) initiate the practice of sequential number assignment according to a schedule which will be determined by Telcordia and members of the telecommunications industry in order to comply with the requirements of this Order.


Sara Kyle, Chairman


H. Lynn Groer, Jr., Director


Melvin J. Malone, Director

ATTEST:


K. David Waddell, Executive Secretary